

Claims

1. A liquid crystal display system comprising:
 - a plurality of autonomous liquid crystal display units in a tiled arrangement, each of said units configured to display a data;
 - a housing comprising a structural support system and a transparent cover, said housing substantially surrounding said units; and
 - a channelization system coupled to said units, said channelization system controlling said data display of each of said units and configured to provide a redundant data display.
2. The liquid crystal display system of claim 1, wherein said structural support system comprises a frame secured to a cavity and enclosing said transparent cover and said units.
3. The liquid crystal display system of claim 2, wherein said structural support system further comprises a carrier having said units disposed therein.
4. The liquid crystal display system of claim 2, wherein said structural support system further comprises a screen divider between said cover and said units.
5. The liquid crystal display system of claim 1, wherein said channelization system comprises a plurality of channels, each of said channels being configured to control at least one of said units.
6. The liquid crystal display system of claim 1, wherein said channelization system comprises a plurality of processors and each of said processors being coupled to one or more units to control said data display of said unit.
7. The liquid crystal display system of claim 1, wherein said redundant data comprises substantially the same data displayed on two or more units.
8. The liquid crystal display system of claim 1, wherein said redundant data

comprises rerouted data from one of said units to a second unit.

9. The liquid crystal display system of claim 1, wherein said channelization system comprises at least one of each of the following: a processor, a power supply, and an input/output.

10. The liquid crystal display system of claim 1, wherein said tiled arrangement comprises a top display section and a bottom display section.

11. The liquid crystal display system of claim 10, wherein said channelization system comprises at least two channels.

12. The liquid crystal display system of claim 11, wherein one of said channels being configured to control said top display section and the second of said channel being configured to control said bottom display section.

13. The liquid crystal display system of claim 11, wherein each of said channels being configured to control at least part of the top display section and at least part of the bottom display section.

14. The liquid crystal display system of claim 11, comprising four liquid crystal display units.

15. A method for unit channelization in a liquid crystal display system, said method comprising:

providing a plurality of individual liquid crystal display units, each of said units able to display data;

arranging said units in a tiled-configuration;

substantially encasing said units in a structural support system, said structural support system having a transparent cover to facilitate viewing of said units;

grouping said units to form at least one channel, said channel having a processor and a power source to control the operation and data display of said units, each of said units able to simultaneously display different data; and

redirecting data between units to provide data redundancy.

16. The method for unit channelization of claim 15, further comprising the step of simultaneously displaying substantially the same data on two units.

17. The method for unit channelization of claim 15, wherein said redirecting step further comprises redirecting data from a faulty unit to an operational unit.

18. The method for unit channelization of claim 17, further comprising the step of displaying said redirected data on said operational unit.

19. The method for unit channelization of claim 15, wherein said arranging step comprises forming a top display section and a bottom display section.

20. The method for unit channelization of claim 19, wherein said grouping step comprises forming two channels.

21. The method for unit channelization of claim 20, wherein said providing step comprises four liquid crystal display units.

22. An aircraft instrument display panel comprising:

a plurality of LCD units in a tiled-configuration, each of said units configured to simultaneously display different data;

a supporting mechanism including a screen divider placed over said units and a carrier having an equal number of depositories as said units;

a transparent cover atop said units;

a frame structure surrounding said cover, said supporting mechanism, and said units; and

a channelization system comprising a plurality of channels, said channels coupled to one or more of said units to form a channel group, said channel group controlling said data display of said units in said group and providing a redundant data display.

23. The aircraft instrument display panel of claim 22, further comprising a manual control feature on said frame structure, said manual control feature coupled ;to said channelization system.

24. The aircraft instrument display panel of claim 22, wherein said screen divider comprises a dark color.

25. The aircraft instrument display panel of claim 22, wherein said frame structure comprises a bezel connected to a backplate.

26. The aircraft instrument display panel of claim 25, wherein said backplate comprises an equal number of slots as said units.

27. The aircraft instrument display panel of claim 25, wherein said slot providing electro/mechanical routing to said unit.

28. The aircraft instrument display panel of claim 22, wherein said redundant data display comprises redirecting data from one unit to another unit.

29. The aircraft instrument display panel of claim 22, comprising four liquid crystal units and said tiled-configuration comprises a substantially square shape.

09901409-0000
T06020-80470660